RUS Broadband Testimony

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CHR Solutions, Inc. is a proud representative of over 100 rural telecommunication providers throughout the United States, many of them RUS borrowers that have benefited from the REA and RUS programs over the years. As a consultant, we have had the advantage to experience and participate in the challenges of deploying broadband services through our rural clients and appreciate the opportunity to share some of those experiences and express some of those challenges on their behalf.

The rural providers of broadband services continue to be the independent telephone companies and CATV providers. Though the Farm Bill describes "rural" as being an area with less than 20,000 inhabitants, there is also a gap between the subscribers in rural communities and the truly "rural" subscriber, a subscriber that the rural independents cannot ignore and have been providing quality service to for many years. One of the main challenges is finding economical ways to provide broadband services to those truly "rural" customers in order to provide equal services throughout. The rural providers are in need of programs that can help them address those small percentage of customers that require the large percentage of investment.

With the help of good programs, like Universal Service and the lending programs RUS has been providing over the years, the rural independents have been successful in providing their rural customers with quality, state-of-the-art services, and in many cases, provided those services before many of the urban areas. Some of the most apparent improvements over the years included single-party service, digital switching, and the reduction of loaded plant. The rural independents, especially the cooperatives, have been more focused on the quality of life and economic developments of their serving areas and have been less occupied by meeting certain financial objectives like the high profile, profit organizations in the larger markets.

With the majority of the communications infrastructure still in some form of copper facilities, either twisted pair or coax, the broadband technologies have been developed based on the characteristics of these facilities, in order to capitalize on existing copper infrastructure. However, one common element of the broadband network continues to be the implementation of fiber. This may occur within 18,000 feet, 12,000 feet, 3,000 feet, or even all the way to the home. Many of the independents have spent the past decade upgrading their networks by placing fiber closer to the subscriber, terminating in some type of electronics, and continuing distribution from the existing copper facilities. This provided relief to exhausted cable, reduced maintenance by eliminating loaded plant, and improved the quality of voice and dial-up services. This also continues to be the preliminary method to deploy broadband services throughout the rural areas, due to the advancements of digital subscriber line and digital loop concentrator equipment. Even so, some rural providers are looking for the economic benefits to completely replace near

or fully depreciated copper facilities with fiber to the home, in order to be prepared to provide just about any kind of broadband service available. Regardless, the rural providers are making or will have to make large investments in fiber facilities and electronics to support the bandwidth requirements of broadband services.

Some preliminary methods of providing broadband services are using wireless technology. There are various deployments of wireless Internet services throughout rural communities, providing anywhere from 64kbps to over 1 Mbps. Licensed spectrum, such as LMDS, 2.5G, and 3G technologies continue to be developed and do not pose an immediate threat to the landline systems. Unlicensed spectrum appears to be the most common deployments, but these technologies have some limitations in comparison to wireline facilities, primarily with quality of service, area coverage, higher bandwidth speeds and the amount of customers that can be served on one system and maintain the required level of service. Because of bandwidth constraints, these type systems may appear to provide adequate service in the short term, but fail to have the robust, long-term capabilities of the landline systems. A good example is the MMDS technology, which provides limited wireless video services, but the demand for more channels is exceeding the capabilities of the system.

History has shown us that these services in the rural areas cannot simply survive on their own and maintain a comparable cost to urban services. Rural providers continue to need assistance in providing the quality services that the urban areas can provide on their own. Rural providers are in need of high cost support for broadband services in order to promote area coverage and discourage "skimming" or selective deployments in more dense areas. The independent telcos are challenged in making deployment strategies due to the instability of the current high cost support mechanisms and the inability to safely project the return on those investments. Other inhibitors are the high initial costs of some service elements, such as a digital headend, to be spread over a small amount of subscribers. High initial costs, coupled with high programming costs, leaves very little margin to help with customer premise equipment, transport, and facilities.

Though we understand competition to promote services and a fair price, competition in the rural areas also provides the challenge that the more lucrative areas are pursued and the outlying sparse areas are not deployed. This provides an injustice to those subscribers in the less lucrative areas. It is imperative that programs are put in place that calls for area coverage and recovery mechanisms are provided to support them.

In the early stages, demand seems to vary in the rural market. Some early deployments show a relatively small percentage of customers (3-5%), others are around 10-12%, and a few deployments even show over a 20% take rate, which even exceeds national averages. Nevertheless, this is still relatively low in comparison to the amount of dial-up users that appear to be content with less than 56kbps, for the time being. It appears the industry is awaiting the "killer ap" to spark the wide-spread demand for broadband services. At which time, demand could well exceed the ability to deploy the services in a timely fashion in the rural areas, considering the necessity to push fiber into the loop.

Without a doubt, the rural providers are looking for economical, efficient methods of obtaining funds to advance their networks to support broadband services. With the competitive nature of the industry being provided through the Telecommunications Act of 1996, time is of the essence. For this reason, it goes without saying that availability of funds and the expediency of obtaining those funds is a major concern when considering a lending facility.

As RUS determines the regulations and provisions to be made for the Broadband Program as provided for in the Farm Bill, the following questions and concerns have been brought to our attention by some of the rural independents that we represent:

What measures will be used by RUS to determine non-duplication of services? Area coverage? Quality of service? Affordable service? For instance, practically any telco could provide a T1 circuit to any customer, which would meet the bandwidth requirement. However, such tariffed services are not comparable in price.

There are many rural unserved and underserved areas that fall within the boundaries of a Metropolitan Statistical Area, yet plans for broadband services do not exist. RUS should consider provisions similar to those in the original REAct that would allow for these areas to be served, even though they are in an MSA.

In conclusion, the rural broadband providers have many challenges in deploying broadband services to the rural areas. They are definitely in need of low cost money and high cost support as they continue to try to provide similar services to the rural areas. With the diminishing incomes from traditional voice services, the rural providers will be looking for broadband services to be alternative sources of income. And who is in a better position to provide those services with some of the elements already in place, than the independent communication providers.